



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2012-0109]**

**Special Nuclear Material Control and Accounting Systems for Nuclear Power Plants**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Regulatory guide; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing a revision to Regulatory Guide (RG) 5.29, "Special Nuclear Material Control and Accounting Systems for Nuclear Power Plants." This regulatory guide provides guidance on recordkeeping and reporting requirements with respect to material control and accounting. This guide applies to all nuclear power plants.

**ADDRESSES:** Please refer to Docket ID **NRC-2012-0109** when contacting the NRC about the availability of information regarding this document. You may access information related to this document, which the NRC possesses and is publicly available, using the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2012-0109**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-492-3668; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual(s) listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may access publicly available documents online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public](#)

[Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced. Revision 2 of Regulatory Guide 5.29, is available in ADAMS under Accession No. ML13051A421. The regulatory analysis may be found in ADAMS under Accession No. ML13051A418.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

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## **SUPPLEMENTARY INFORMATION:**

### **I. Introduction**

The NRC is issuing a revision to an existing guide in the NRC’s “Regulatory Guide” series. This series was developed to describe and make available to the public information such as methods that are acceptable to the NRC staff for implementing specific parts of the agency’s regulations, techniques that the staff uses in evaluating specific problems or postulated accidents, and data that the staff needs in its review of applications for permits and licenses.

Revision 2 of RG 5.29 was issued with a temporary identification as Draft Regulatory Guide, DG-5028. This guide describes a method that the NRC staff considers acceptable to implement special nuclear material control and accounting system requirements for nuclear power plants. This guide applies to all nuclear power plants.

Part 74 of Title 10, of the *Code of Federal Regulations* (10 CFR), “Material Control and Accounting of Special Nuclear Material,” Subpart B, “General Reporting and Recordkeeping Requirements,” establishes the material control and accounting performance requirements for special nuclear material at nuclear power plants. The regulations at 10 CFR 74.11, “Reports of Loss or Theft or Attempted Theft or Unauthorized Production of Special Nuclear Material,” require, in part, that nuclear power reactor licensees notify the NRC of any such events within 1 hour of discovery. The regulations at 10 CFR 74.13, “Material Status Reports,” require nuclear power reactor licensees to submit material status reports for certain quantities of special nuclear material. The regulations at 10 CFR 74.15, “Nuclear Material Transaction Reports,” require nuclear power reactor licensees to complete transaction reports when transferring, receiving, or making adjustments to specified quantities of special nuclear material. The regulations at 10 CFR 74.19, “Recordkeeping,” require, in part, that nuclear power reactor licensees keep records that show the receipt, inventory (including location and unique identity), acquisition, transfer, and disposal of all special nuclear material in their possession. Additionally, 10 CFR 74.19 requires, in part, that licensees establish, maintain, and follow written material control and accounting procedures, and that they conduct physical inventories of special nuclear material at intervals not to exceed once every 12 months.

Regulatory Guide 5.29 endorses American National Standards Institute (ANSI) N15.8-2009, “Methods of Nuclear Material Control—Material Control Systems—Special Nuclear Material Control and Accounting Systems for Nuclear Power Plants.” ANSI N15.8-2009 provides guidance on the control and accounting of 1) fuel rods that are separated from their

parent assemblies; and 2) pieces of irradiated material that are separated as a result of fuel damage.

## **II. Additional Information**

DG-5028, was published in the *Federal Register* on May 14, 2012 (77 FR 28407), for a 60-day public comment period. The public comment period closed on July 16, 2012. Public comments on DG-5028 and the staff responses to the public comments are available under ADAMS Accession Number ML13051A437.

This regulatory guide is a rule as designated in the Congressional Review Act (5 U.S.C. 801-808). However, OMB has not found it to be a major rule as designated in the congressional Review Act.

## **III. Congressional Review Act**

This regulatory guide is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget (OMB) has not found it to be a major rule as defined in the Congressional Review Act.

## **IV. Backfitting and Issue Finality**

This regulatory guide provides guidance on recordkeeping and reporting requirements with respect to material control and accounting, as set forth in 10 CFR part 74. The regulatory position held in this guidance demonstrates the method that the NRC staff finds acceptable for an applicant or licensee to meet the requirements of the underlying NRC regulations.

The issuance of the guidance in this regulatory guide is not backfitting, as that term is defined in 10 CFR 50.109 or inconsistent with the issue finality provisions in 10 CFR part 52, because information collection and reporting requirements with respect to material control and

accounting are not included within the scope of the NRC's backfitting protections or part 52 issue finality provisions. Material control and accounting requirements are applicable to special nuclear material (SNM) licensees possessing SNM quantities greater than the part 74-specified threshold. Materials control and accounting are intended to ensure that SNM is not used, or diverted for use, in a manner that endangers public health and safety or the common defense and security. The requirements are focused on the possession of SNM, and not with respect to its use in the operation of the nuclear power reactor. This is true even though the guidance in this regulatory guide is addressed to materials control and accounting at nuclear power plants. This regulatory guide reflects the physical and operational considerations of nuclear power reactors, which are different from other facilities possessing SNM above the part 74 specific threshold. The regulatory guide does not present more stringent guidance for materials licensees who are also power reactor licensees, as compared to guidance for those materials licensees who are not power reactor licensees. Therefore, the NRC does not regard the materials control and accounting requirements in part 74 as a general matter, or as applied to nuclear power reactors in the guidance of RG 5.29, as being within the scope of backfitting or issue finality provisions.

Applicants and potential applicants are not, with certain exceptions, protected by any issue finality provisions under part 52. This is because the issue finality provisions under part 52, with certain exclusions discussed below, were not intended to apply to every NRC action which substantially changes the expectations of current and future applicants. The exceptions to the general principle are whenever an applicant references a part 52 license (*e.g.*, an early site permit) and/or NRC regulatory approval (*e.g.*, a design certification rule) with specified issue finality provisions. However, the scope of issue finality provided extends only to the matters resolved in the license or regulatory approval. Early site permits and design certification rules

do not address or resolve compliance with material control and accounting requirements in 10 CFR part 74. Therefore, no applicant referencing an ESP or DCR is protected by relevant issue finality provisions with respect to the material control and accounting matters addressed in this regulatory guide.

Dated at Rockville, Maryland, this 19<sup>th</sup> day of June, 2013.

For the Nuclear Regulatory Commission.

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